

REMARKS

ELECTION OF SPECIES

The applicant hereby confirms the election of example 4. Currently claims 30-33, 34, and 35 are generic. Claims 36-39 stand withdrawn from consideration and have been canceled without prejudice. Favorable consideration is requested.

DISCUSSION

35 U.S.C. 112

The double recitation of ethoxylated nonylphenol as a cationic surfactant was unintended and has now been canceled in claim 34. The spelling of the word "cetrimonium" has now been corrected in line 7. The indefiniteness with respect to the five compounds has now been tended to. The material objected to in claim 34 under section 112 is now believed to be clear, concise, definite and unambiguous as amended. Claim 32 which has been objected to has now been canceled. Favorable consideration under 35 C.F.R. § 112 is therefore believed to be in order and is respectfully requested.

35 U.S.C. 103(b)

Claims 27-33, 34 and 35 have been rejected as unpatentable over Aboud in combination with Guice and Mueminghoff.

It is acknowledged that Aboud describes spraying insecticide from an aerosol dispenser in a conventional manner. However, Aboud requires the use of a hydroxy acyclic acid such as citric or lactic acid together with a surfactant (column 2 lines 13-16). Consequently, the Aboud composition as well as its mode of operation is markedly different from that claimed. The hydroxy acyclic acid

of Aboud causes death by attacking the nervous system (see lines 19-21) which provide

“--- penetration of the hydroxy acyclic acid into the insect’s nervous system is facilitated so as to disrupt the normal respiratory function.” (emphasis supplied.)

Thus it is the acid attacking the nervous system that causes suffocation. Claim 34 has now been amended to make it clear that the solution is devoid of a nervous system inhibitor (claim 34 line 8). Applicant’s method is further described in the last four lines of claim 34 as follows:

“the solution coats out onto the insect blocking spiracles through which the insect breathes sufficient to interfere with respiration.” (emphasis supplied.)

Surprisingly it is a mechanical blocking of the spiracles which the applicant discovered could be effective without the use of a nervous system inhibitor. The claims as now amended are believed to be patentably distinct from the prior art since there is nothing in Aboud or any of the other references to suggest that suffocation could be achieved by spiracle blockage.

The Examiner acknowledges that Aboud does not suggest detecting presence of an insect and spraying responsive to the presence of the insect thus detected, as claimed, but depends upon Guice for this teaching. Although Guice mentions spraying “limited amounts of pesticide,” he speaks of it disparagingly and prefers laser pulses and various forms of electromagnetic energy beams (see column 3 line 64 to column 4 line 3) stating that,

“chemical pesticides are generally less effective or costly to implement and maintain in large field crop environments.” (emphasis supplied.) Since Guice states that chemicals are more expensive and less effective, the applicant wishes to respectfully point out that the statement in the Official Action that, “motivation to utilize Aboud’s composition with Guice is the use of less expensive kill techniques” contradicts Guice’s teachings. A fair evaluation of Guice would lead one to use a power beam transmitter to disable the insect. Various forms of lasers and other kinds of

power beam transmitters are described beginning on column 22 and for the next six pages. Clearly, Guice teaches one to use a power beam transmitter. Thus, one viewing Guice would be lead in a diametrically opposed direction away from use of pesticidal sprays rather than toward it.

Absent from the Examiner's combination of primary and secondary references is any suggestion to make the combination. Much less can there be found a reasonable expectation of success especially in reducing costs, increasing effectiveness or successfully killing the insects with a detection actuated spray if the combination were to be made. This requirement is well established in the law, as set out in In re: Mark A. Vaeck, 947 F.2d 488, 493, 20 USPQ2d 1438, 1422 (Fed. Cir. 1991):

"Where claimed subject matter has been rejected as obvious in view of a combination of prior art references, a proper analysis of prior art references under §103 requires, inter alia, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have reasonable expectation of success. [Citation omitted]. Both the suggestion and the reasonable expectation of success must be found in the prior art, not in the applicant's disclosure."

(Emphasis added).

However, even if the references were combined, the result would not be the method claimed since applicant's method depends upon mechanically blocking spiracles to kill the insects rather than deactivating the nervous system with an acid.

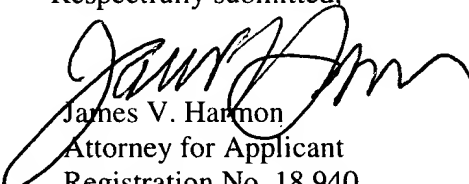
The Examiner cites Mueminghoff with respect to viscosity modifiers and thickeners. It is noted, however, that the methyl ester ethoxylate is used for "solubilizing" and acting as a "cosolvent" and "emulsifier" to "enhance application" (see column 2 lines 32-43). Consequently, it

is far from clear that the ethoxylate or other constituents thicken the surfactant. In any event, there is no clear disclosure of a thickening effect. Moreover, "solubilizing," "acting as a cosolvent," or even "acting as an emulsifier" would normally render a composition less viscous rather than thickening it. Claim 34 has now been amended to provide a thickener for increasing the viscosity of the liquid solution. The applicant discovered that the thickening of the surfactant as claimed was particularly effective for enabling the composition to block spiracles thereby making it possible to produce the desired results even without the use of acids.

Claim 33 is also believed to be patentable for the reason that the art does not suggest the specific metal ions will aid a surfactant in achieving spiracle blockage.

Nothing in the art appears to suggest the claimed method of preventing respiration by mechanically blocking the spiracles through the use of a thickened surfactant that is sprayed upon the insect in response to the detected presence of the insect as claimed. Favorable consideration and allowance of the amended claims is therefore believed to be in order and is respectfully requested.

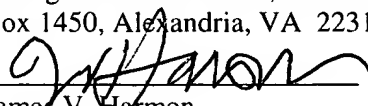
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